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FUTURE.



Port Environmental Issues On The International Front

Geraldine Knatz, Ph.D.
Executive Director
Port of Los Angeles

PIANC
Environment Roundtable
March 2007



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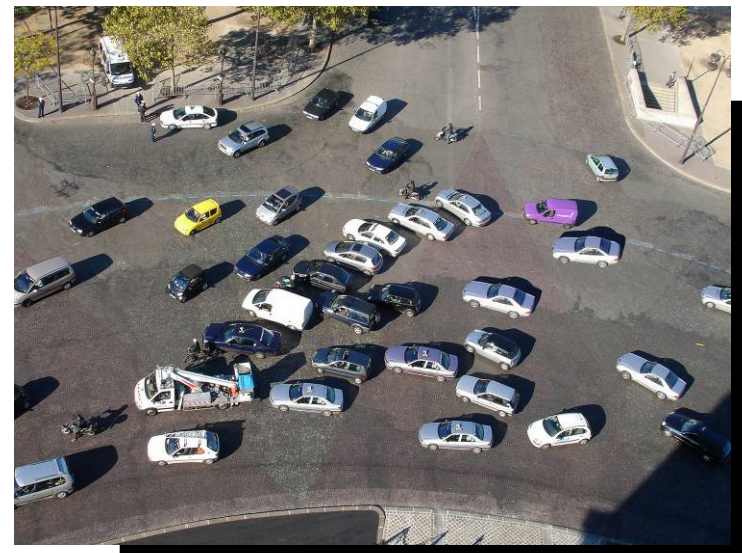
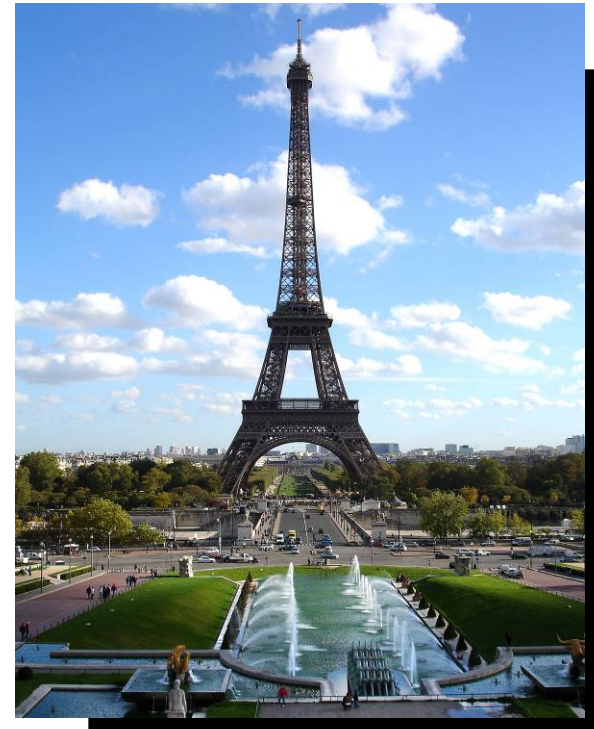


Trip to Paris

Bonjure!

- Meeting on European Congestion from Goods Movement
 - ✓ Intermodal Logistics
 - ✓ Ports
 - ✓ Rail Ways
 - ✓ Aviation

- Seemed to lack concern for the public health issues associated with Goods Movement



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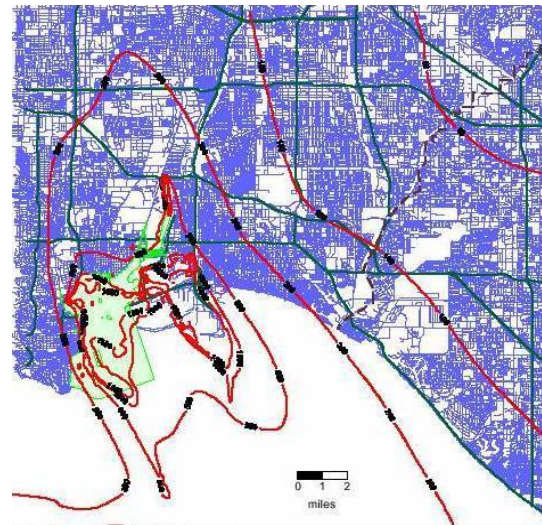
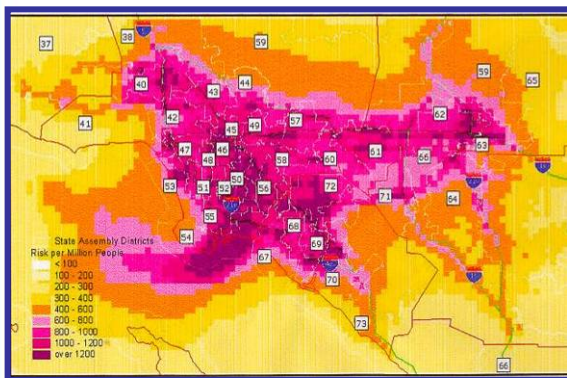
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Need for Green Ports

Health & Environmental Impacts

- Diesel Particulate Matter Identified as Air Toxic by California Air Resources Board (CARB)
- SCAQMD's MATES II Study
- CARB DPM Exposure Assessment Port of Los Angeles & Port of Long Beach
 - ✓ Increased cancer risk and premature deaths



Pollution, traffic are linked to illness

ENVIRONMENT: German study finds heart attacks are three times more likely in congestion. Bad air is blamed.

Latino areas are hit hard by environmental health threats

REPORT: Group suffers more from pollution than the rest of the population, study finds.

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Need for Green Ports

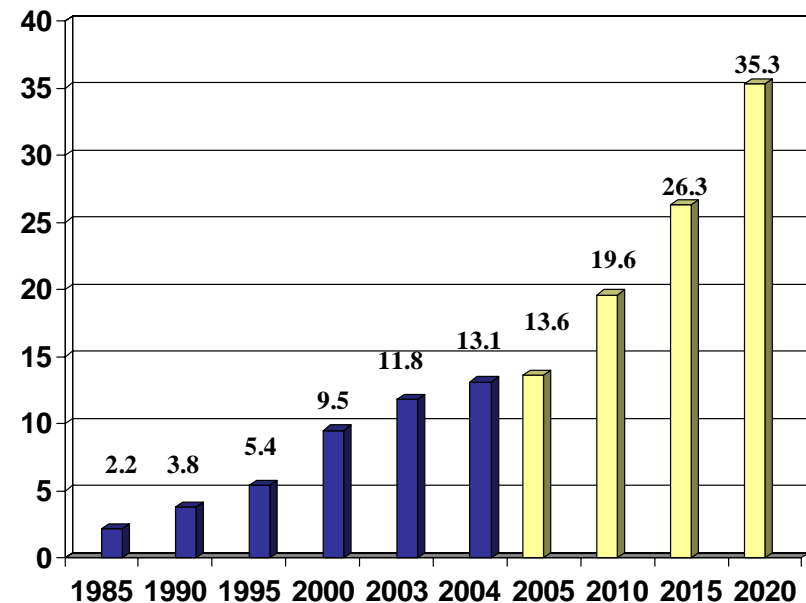
Ports Are On Front Line Of GM Environmental Issues

- 2005 San Pedro Bay Ports had 2,800+ Containership Calls
- San Pedro Bay Ports Move ~40% of All US Containerized Cargo
- San Pedro Bay Throughput Expected to Triple by 2020

*Anticipated TEU
Throughput
Growth
(million TEUs)*



**It may look like an ocean.
But it's really a highway.**



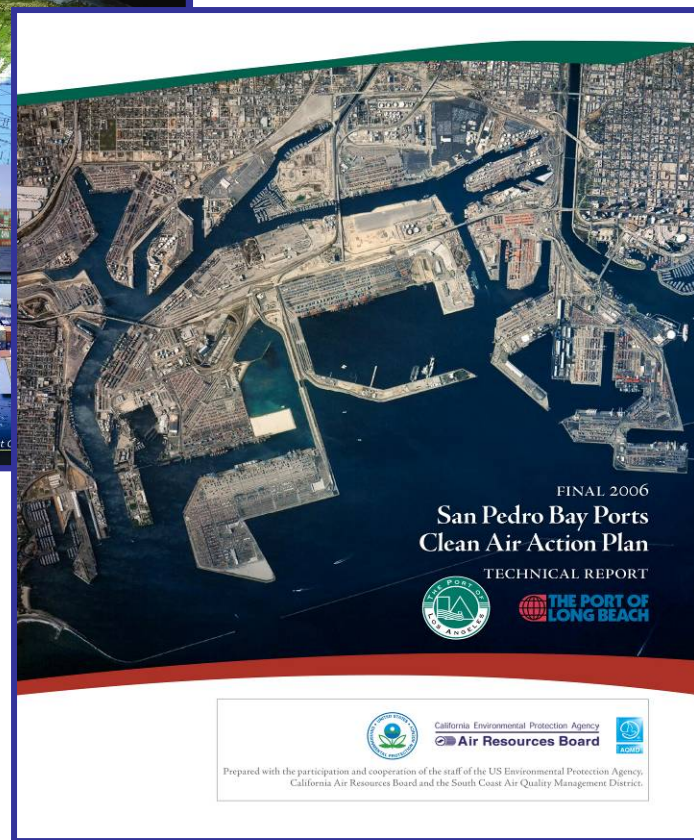
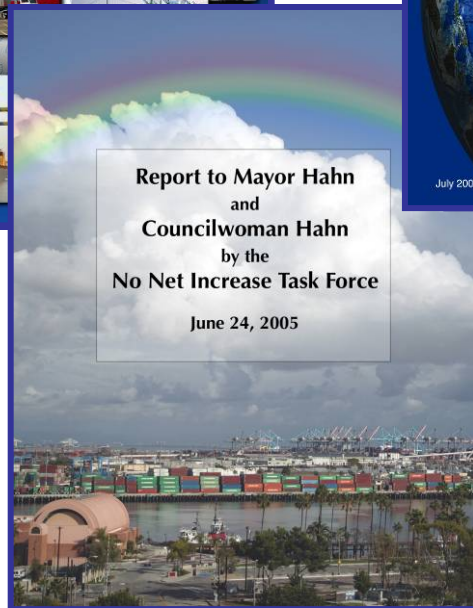
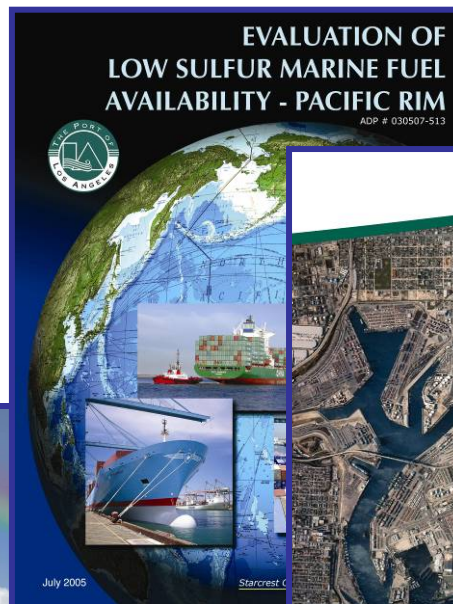
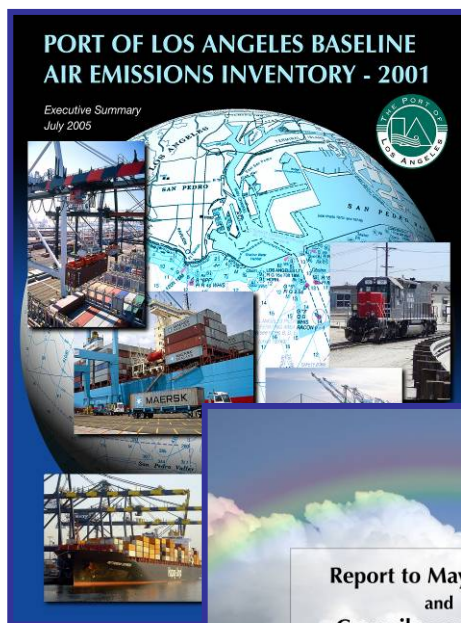
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Need for Green Ports

Port Los Angeles Efforts

➤ We've Tried From the Local Side

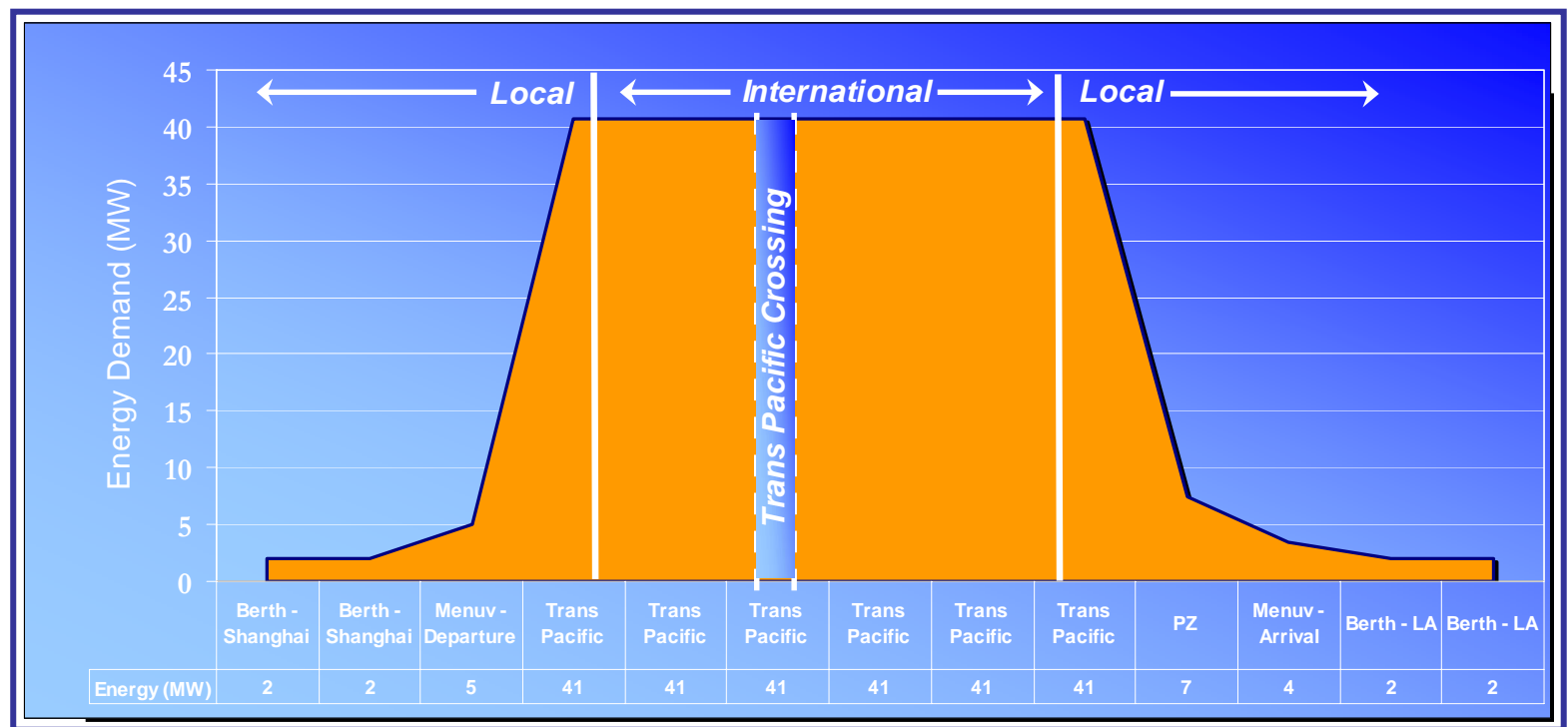




Need for Green Ports

Int'l Commerce Brings Local Air Pollution Issues

- Ship Trans-Pacific Energy Demand – Shanghai/Los Angeles



- Greater Energy Demand = Greater Pollution

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Need for International Collaboration

Shared Environmental Problems

Rotterdam



Hong Kong



Busan



Shanghai



Antwerp



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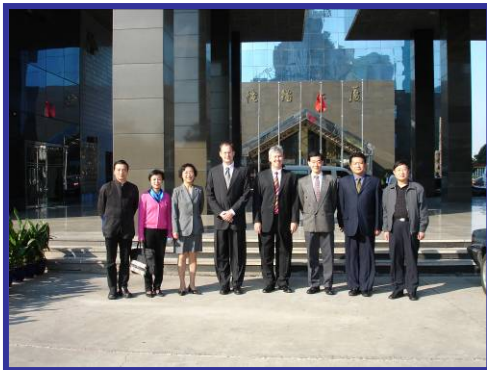
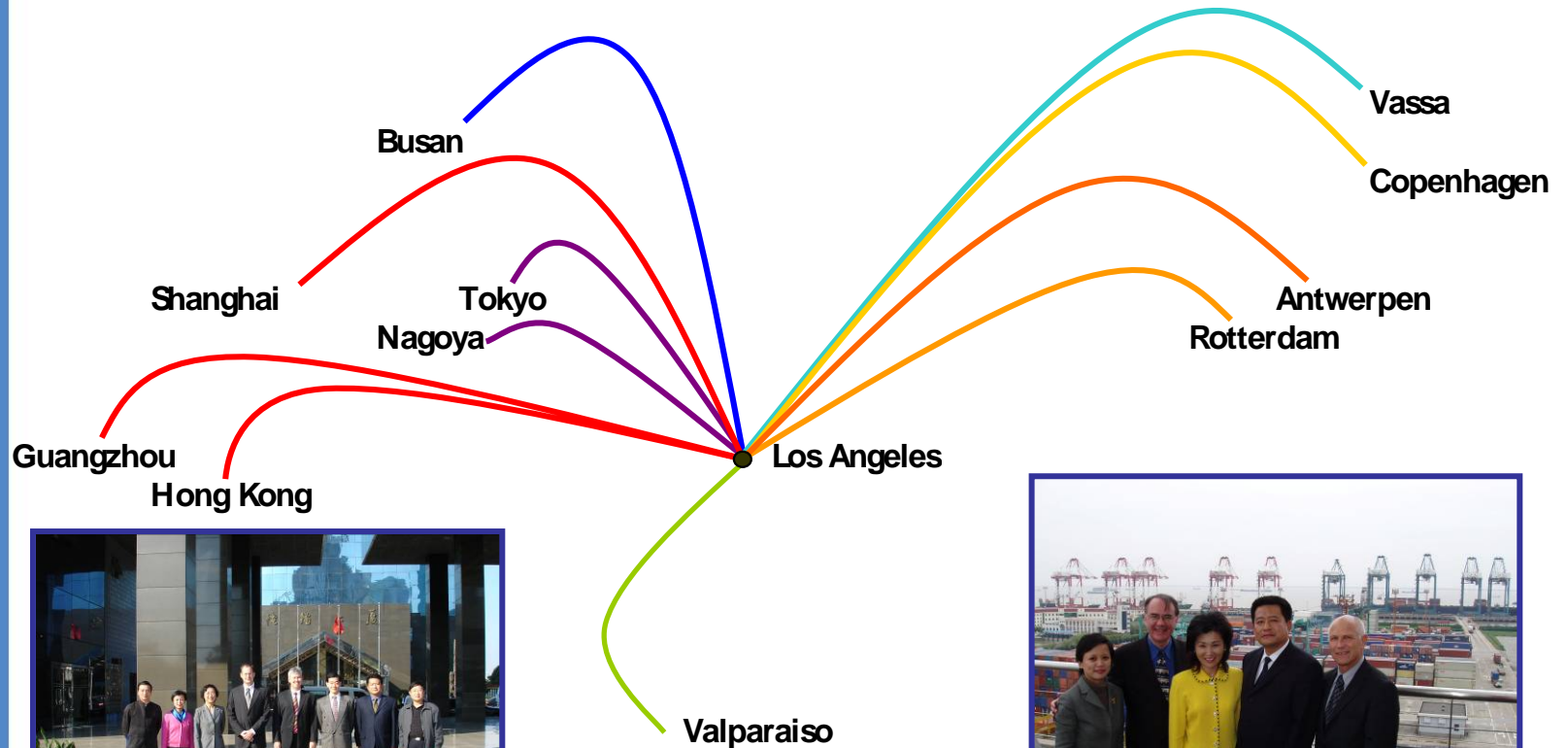


Need for International Collaboration

POLA's Collaborative Strategy

- Ports & Terminal Operators
- Fuel Providers
- Engine Manufacturers

- Vessel Manufacturers
- Standardization



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Need for International Collaboration

Shore-Side Power Standardization

- ISO Working Group Established (IAPH & International Chamber of Shipping)
- Working Group Meeting (September 2006)
- Established Draft Committees
 - Cruise, Container/RoRo,
 - Tanker/LNG, Bulk, Ferry
- Preliminary Draft Committee document due end February
- Workgroup Meeting April 4 & 5 – Port of Gothenburg
- Publicly Available Specifications (PAS) in 2007





Need for International Collaboration

Vessel Manufacturers

- Meeting with Hyundai Heavy Industries
- Accommodations for AMP
- Accommodations for Main Engine after-treatment devices
- Accommodations for Additional Tankage flexibility
- Current & Future Engine Technologies



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Need for International Collaboration Engine Manufacturers

- Meetings with MAN & Wartsila
- “Green Engines”
- Main & Auxiliary Engine Operations
- Fuels & Lube Oils
- Current & Future Engine Technologies
- Verification
- Collaboration Opportunities



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Need for International Collaboration

International Organizations

- IMO –
 - ✓ April 2007 – London; Subcommittee negotiations on Annex VI
 - ✓ EPA/US delegation is pushing for long-term & base standards (for new & existing ships) for PM, SOx and NOx using advanced technologies
 - ✓ Subcommittee expected to report back to Marine Environmental Protection Committee – July 2007
- IAPH – Currently developing air quality information & tool box for use by members
- INTERTANKO – Urges IMO Subcommittee to add global SECA based purely on distillate fuels: 1%S by 2010 & 0.5%S by 2015

International Organizations – Not moving far nor fast enough!!



Need for International Collaboration

Ports & Terminals

- The Port of Los Angeles has signed environmental collaboration agreements to work together with the following Ports:

- ✓ Shanghai
- ✓ Nagoya
- ✓ Tokyo
- ✓ Guangzhou
- ✓ Valparaiso

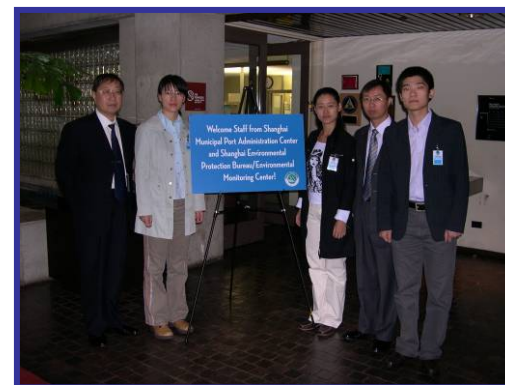


- EPA/MARAD grant to work with Shanghai

- ✓ Emissions inventory & monitoring
- ✓ Collaborative source testing

- Completed a staff exchange at the Port with:

- ✓ Shanghai Municipal Port Administration Center
- ✓ Shanghai Environmental Protection Department





Need for International Collaboration

Continuing Efforts

- Working w/Hong Kong to incorporate AMP into new cruise terminal
- Spring trip to Shanghai & Hong Kong to continue collaboration
- Shanghai Air Inventory Workshop, Emission Testing
- Discussing additional opportunities with EPA/MARAD



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Need for International Collaboration

The View Is The Same In Any Country

Korea



Netherlands



Los Angeles



China



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